5. NEW RECORDS OF RODENTS FROM THE RAJASTHAN DESERT

Rodents were trapped in the Rajasthan desert to study their distribution, relative abundance and relationship with the habitat and vegetation types. Trapping was done in eleven districts of the desert. In every district two trap lines, having 30 snap traps each fixed at 10 metres interval, were laid out in every habitat, viz. sandy, gravelly, rocky and ruderal. In all, 449 specimens of rodents were collected. The following species appear to be new records from the desert region.

Rattus cutchicus cutchicus (Wroughton). The Cutch Rock-Rat.

MATERIAL EXAMINED: 2 & from Chohtan (Barmer District), December 1968; 4 o o from Jaisalmer—December 1968; 5 & and 4 o o from Jhunjhunu—December 1968; 8 & and and and a of and a unsexed from Bhopalgarh (Jodhpur District)—April 1969; 7 & and 7 o o from Jalore—January 1969; 2 & and 6 o o from Erinpura (Sirohi District)—January and September 1969 and 2 o o from Jadan (Pali District)—January 1969.

Rattus cutchicus has a wide range in India (Ellerman 1961), but the subspecies R. c. cutchicus (Wroughton), R. c. medius (Thomas) and R. c. rajput (Thomas) are found nearest to Rajasthan in Gujarat and rajput has been reported from Mt. Abu (Ellerman 1961). During our survey, however, R. c. cutchicus was collected westward in the desert in Jodhpur, Barmer and the Jaisalmer districts and in the north up to Jhunjhunu District¹.

One female collected near Jawai Dam, Erinpura, delivered a litter of 2 young on 19.ix.1969 and nearly all males from Bhopalgarh had fully scrotal testes in April, 1969.

Mus booduga booduga (Gray). The Common Indian Field Mouse.

MATERIAL EXAMINED: 2 & & from Jadan—January 1969; 1 & and 1 & from Bisalpur (Sirohi district)—January and September 1969; and 1 & from Jodhpur—June 1968.

According to Ellerman (1961), this mouse is distributed from Bellary Mysore, Nilgiri to Gujarat State through Bombay; in Madhya Pradesh. Bihar, Orissa and Uttar Pradesh. The present material extends its range into the south-eastern deserts of Rajasthan.

One male collected from Bisalpur, in September, 1969, had fully scrotal testes.

¹ Some of the R. cutchicus were removed by a large male Herpestes smithi Gray, a mongoose identified by the black colour at the tip of the tail. Incidentally, this mongoose has also not been reported from the Rajasthan desert.

Mus cervicolor phillipsi (Wroughton). The Fawn-coloured Spiny Mouse.

Material examined: 1_{6} and 1_{9} from Jalore, 1_{6} and 4_{9}_{9} from Bisalpur—January 1969.

The subspecies occurs in Central India, Bellary, Balapalli range, Salem District to Gujarat and has been reported from Mt. Abu (Ellerman 1961). At Jalore and Bisalpur, this mouse was collected in association of *Euphorbia caducifolia* bushes in a rocky habitat.

Mus platythrix sadhu (Wroughton). The Brown Spiny Mouse.

MATERIAL EXAMINED: 1σ from Chohtan—November 1968; $4\sigma\sigma$ from Bhopalgarh—April 1969; $3\sigma\sigma$ and $2\varphi\varphi$ and 1 unsexed from Jadan—January 1969 and 1σ and 1φ from Bisalpur—January 1969.

The subspecies has a restricted distribution in Kathiawar, Kutch, Lahore and Virawah in West Pakistan. It was also reported from Mt. Abu (Ellerman 1961). During the present study this rodent was collected from sandy and rocky habitats. It appears that its range in the Rajasthan desert extends into Barmer, Jodhpur, Pali and Sirohi districts.

Golunda ellioti gujerati (Thomas). The Bush Rat.

MATERIAL EXAMINED: 10 from Jadan—November 1968; 233 from Jalore—January 1969; 733 and 10 00 from Bisalpur—January 1969 and 10 Jodhpur—August 1968.

Golunda e. gujerati is reported from Gujarat and Mt. Abu in Rajasthan. Our collections indicate that its range is further north, up to Jodhpur District. The Bush Rat was usually collected from thorn fences surrounding irrigated crop fields. Wagle (1927) and Biswas & Tiwari (1966) have mentioned that it occurs in parts of Sind. Taber et al. (1967), however, did not collect it in the Lyallpur region in West Pakistan.

Nesokia indica indica (Gray). The Short-tailed Mole-rat,

MATERIAL EXAMINED: 1 9 from Sri Ganganagar—January 1969.

The Mole-rat has been reported from east of the Aravalli ranges, from Sambhar and Jaipur (Ellerman 1961). Our collection is, however, from west of Aravallis—from the northernmost part of Rajasthan. The rodent was collected from a sugarcane field but large mounds of earth were noticed on the bunds in orchards and Date Palm fields. It appears that this rat which is usually found in irrigated crop fields is comparatively a recent 'introduction' in the desert region where irrigation is practised and conditions are favourable throughout the year due to the advent of the Ganga Canal.

Recently Agarwal (1967), and Prakash & Jain (1967) reported Rattus gleadowi, Gerbillus dasyurus indus and Rattus meltada pallidior from Jodhpur. During the present survey we have collected these species from other districts also which indicates that they have a wide range of distribution in the Indian desert.

Gerbillus dasyurus indus¹ (Thomas). Wagner's Gerbil.

MATERIAL EXAMINED: 2 9 9 from Jaisalmer—December 1968; 1 3 and 1 9 from Bikaner—January 1969; 1 3 from Churu—December 1968; 1 9 from Maulasar Nagaur District)—December 1968; 14 3 3 and 21 9 9 from Jodhpur during 1967-69.

The Gerbil was earlier reported from Gujarat, Punjab and West Pakistan (Biswas & Tiwari 1966); Taber et al. (1967). This gerbil breeds during April-June and December.

Rattus meltada pallidior (Ryley). Soft-furred Field-Rat.

MATERIAL EXAMINED: 6 or or and 3 or or from Jhunjhunu—December 1968; 1 or from Bhopalgarh—April 1969; 3 or or and 5 or or from Maulasar—December 1968; 2 or or and 2 or or from Jalore—January 1969; 7 or or and 7 or or from Bisalpur—January 1969; 5 or or and 3 or or from Sri Ganganagar—January 1969.

Recorded usually from cultivated fields in the Punjab, Haryana, Nepal Terai, parts of Gujarat, Sind (Ellerman 1961) and in the Lyallpur region of West Pakistan (Taber et al. 1967). The rat is fairly well distributed in the western Rajasthan. We have collected it from natural grasslands also.

Rattus gleadowi (Murray). Sand-coloured Rat.

MATERIAL EXAMINED: 1 & and 1 \nabla from Bikaner—January, 1969; 1 \nabla from Bhopalgarh—April 1969 and 6 & & and 3 \nabla \nabla from Pali during 1962.

It is reported from Kathiawar, Palanpur, Sind and South Waziristan (Ellerman 1961). Urs et al. (1966) reported it from Mysore.

Three specimens from Pali delivered litters of 2, 2 and 3 respectively, during August and September, 1962.

CENTRAL ARID ZONE RESEARCH INSTITUTE, JODHPUR, April 7, 1970.

ISHWAR PRAKASH A. P. JAIN B. D. RANA

¹ Petter (1961) refers G. dasyurus to G. nanus.

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6. OCCURRENCE OF EASTERN RINGED PLOVER (CHA-RADRIUS HIATICULA TUNDRAE (LOWE) IN TAMIL NADU

On 22 February 1970, at the Society's bird ringing camp at Muthupet (c. 10° 35′ N.; 79° 36′ E.), Thanjavur District, Tamil Nadu, the trappers brought in two plovers that appeared like larger versions of *Charadrius dubius*. One of them was ringed and released after the wing measurement (136 mm.) and weight (57 gm.) were ascertained. The other (wing 123, mltg.; 52 gm. wt.) was taken to the camp for further investigation. From FAUNA OF BRITISH INDIA 6 and HANDBOOK OF BIRDS OF INDIA AND PAKISTAN 2, it appeared to be an Eastern Ringed Plover *Charadrius hiaticula tundrae* (Lowe). In view of the scarceness of Indian records the specimen was preserved by S.A.H.

A closer examination in Bombay revealed a small web between the outer and middle toe, while Vaurie (Systematic Notes on Palaearctic Birds, 1964, Am. Mus. Novit. 2177, p. 2) states that the outer and middle toes are not webbed in Charadrius hiaticula whereas they are webbed in the other species, semipalmatus, adding that the difference is not always easy to see in dried skins. Dementiev and Gladkov have described Charadrius hiaticula as having "a small swimming web at the base of middle and external toe" (BIRDS OF SOVIET UNION 3: 71). In the absence of suitable material for comparison, the specimen was sent to Dr. Dillon Ripley who has confirmed our identification.

The fact that two birds were obtained at the same time suggests that it is not so rare a straggler as is suggested by existing records for India. The specimen is the first of the species in the collection of the Bombay Natural History Society.